US ARMY CORPS OF ENGINEERS

Savannah District

Lower Savannah River Basin

Environmental Restoration Project

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Results of Post-Project Monitoring

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- Project was constructed from Sep 01 to Jul 02
- Restoration – divert flows from main river to small creek
- Intended Benefits
  - Rehydrate 4700 AC Bottomland Hardwoods
  - Improve Water Quality

Cut No. 4
Flat Ditch Point
(Mile 42)
Cut No. 3
Hickory Bend
(Mile 40)
GA
SC
Mill Creek
Bear Creek
Savannah River
Three Mouths
City of Savannah
Fresh Water
Pumping Station
(West of Mile 30)
Abercorn Creek
Collis Creek
N
Savannah 14 Miles
LOWER SAVANNAH
RIVER BASIN STUDY

Cut 3
Pre –
1960

Cut 3
Year
2000

Post-
Construction

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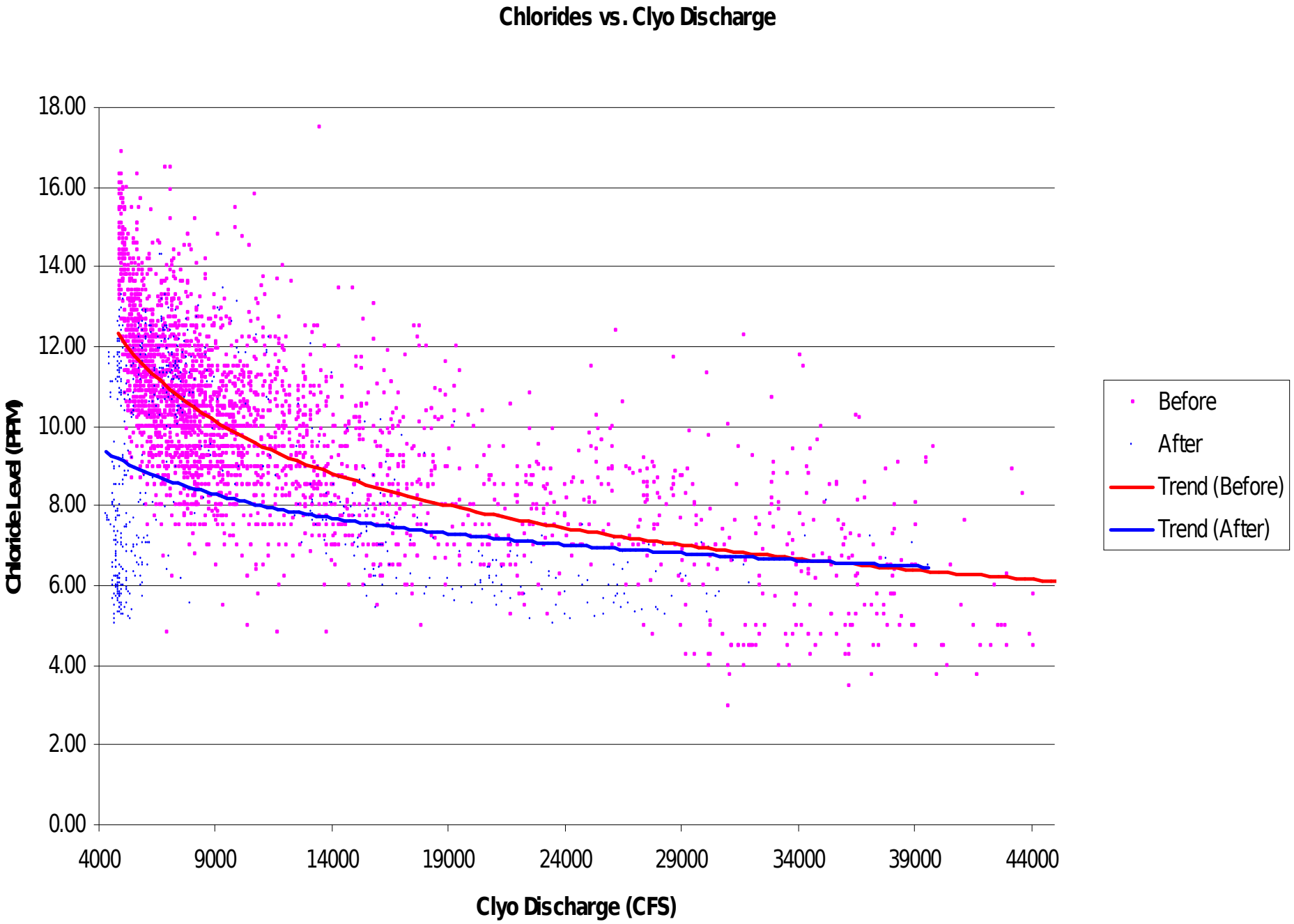
POST-CONSTRUCTION MONITORING

- Chloride
- Velocity
- Conductivity
- Dissolved Oxygen


Chlorides vs. Clyo Discharge
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Chloride Level (PPM)
4000
9000
14000
19000
24000
29000
34000
39000
44000
Clyo Discharge (CFS)
Before
After
Trend (Before)
Trend (After)

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Velocity

	Before	After
Net Velocity	-0.047	-0.126
Downstream	-0.065	-0.127
Upstream	0.036	0.036
Upstream /		

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Annual Inspection
February 2004

- High flows in 2003 left snags in creek -- reduced velocities
- Corresponds to slight increase in City's treatment costs

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CONCLUSIONS

- Increased velocity through Bear Creek
- Increased flushing through Bear Creek
- Decreased chlorides at City's water intake
- Decreased treatment costs for City
- Maintenance is required – removal of

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CONCLUSIONS (Analyses Incomplete)

- Effect on stage in Bear Creek -- ????
- Effect on D.O. in Bear Creek -- ????

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QUESTIONS ?